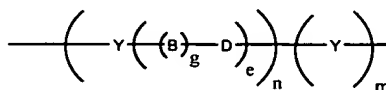


In the claims:

Please amend the following claims:

57. (Amended) A composition comprising a conductive oligomer covalently attached to a CPG-nucleoside, wherein said conductive oligomer has the formula:



wherein

Y is an aromatic group;

n is an integer from 1 to 50;

g is either 1 or zero;

e is an integer from zero to 10; and

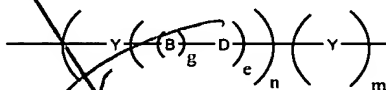
m is zero or 1;

wherein when g is 1, B-D is selected from acetylene, alkene, substituted alkene, amide, azo, esters, thioesters, -CH=N-, -CR=N-, -N=CH- and -N=CR-, -SiH=SiH-, -SiR=SiH-, -SiR=SiH-, and -SiR=SiR-, -SiH=CH-, -SiR=CH-, -SiH=CR-, -SiR=CR-, -CH=SiH-, -CR=SiH-, -CH=SiR-, and -CR=SiR-, wherein R is a substitution group; and

wherein when g is zero, e is 1 and D is carbonyl or a moiety comprising oxygen, sulfur, nitrogen or phosphorus.

58. (Amended) An electrode comprising:

a) a monolayer comprising a passivation agent layer comprising conductive oligomers, wherein said conductive oligomer having the formula:



wherein

Y is an aromatic group;

n is an integer from 1 to 50;

g is either 1 or zero;

e is an integer from zero to 10; and

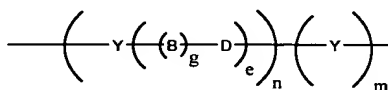
m is zero or 1;

wherein when g is 1, B-D is selected from acetylene, alkene, substituted

alkene, amide, azo, esters, thioesters, -CH=N-, -CR=N-, -N=CH- and -N=CR-,
 -SiH=SiH-, -SiR=SiH-, -SiR=SiH-, and -SiR=SiR-, -SiH=CH-, -SiR=CH-, -
 SiH=CR-, -SiR=CR-, -CH=SiH-, -CR=SiH-, -CH=SiR-, and -CR=SiR-,
 wherein R is a substitution group; and
 wherein when g is zero, e is 1 and D is carbonyl or a moiety comprising
 oxygen, sulfur, nitrogen or phosphorus; and,

b) at least one nucleic acid covalently attached to said electrode with a spacer.

62. ^{Twice} (Amended) composition comprising a phosphoramidite nucleoside covalently attached
 to a conductive oligomer with a metallocene ligand, wherein said conductive oligomer has
 the formula:



wherein

Y is an aromatic group;

n is an integer from 1 to 50;

g is either 1 or zero;

e is an integer from zero to 10; and

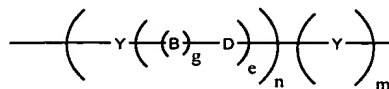
m is zero or 1;

wherein when g is 1, B-D is selected from acetylene, alkene, substituted alkene,
 amide, azo, esters, thioesters, -CH=N-, -CR=N-, -N=CH- and -N=CR-, -SiH=SiH-, -
 SiR=SiH-, -SiR=SiH-, and -SiR=SiR-, -SiH=CH-, -SiR=CH-, -SiH=CR-, -SiR=CR-, -
 CH=SiH-, -CR=SiH-, -CH=SiR-, and -CR=SiR-, wherein R is a substitution group;

and

wherein when g is zero, e is 1 and D is carbonyl or a moiety comprising oxygen,
 sulfur, nitrogen or phosphorus.

66. ^{Twice} (Amended) A composition comprising a deoxynucleotide triphosphate covalently
 attached to a conductive oligomer with a metallocene ligand, wherein said conductive
 oligomer has the formula:



wherein

Y is an aromatic group;

n is an integer from 1 to 50;

g is either 1 or zero;

e is an integer from zero to 10; and

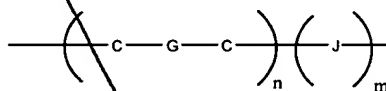
m is zero or 1;

wherein when g is 1, B-D is selected from acetylene, alkene, substituted alkene, amide, azo, esters, thioesters, -CH=N-, -CR=N-, -N=CH- and -N=CR-, -SiH=SiH-, -SiR=SiH-, -SiR=SiH-, and -SiR=SiR-, -SiH=CH-, -SiR=CH-, -SiH=CR-, -SiR=CR-, -CH=SiH-, -CR=SiH-, -CH=SiR-, and -CR=SiR-, wherein R is a substitution group; and

wherein when g is zero, e is 1 and D is carbonyl or a moiety comprising oxygen, sulfur, nitrogen or phosphorus.

Please add the following new claim:

68. A composition according to claim 57 wherein said conductive oligomer has the formula:



wherein

n is an integer from 1 to 50;

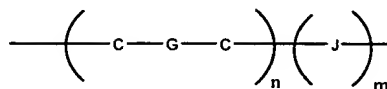
m is 0 or 1;

C is carbon or substituted carbon when G is a single or double bond;

J is carbonyl or a heteroatom moiety, wherein the heteroatom is selected from the group consisting of nitrogen, silicon, phosphorus, sulfur; and

G is a bond selected from single, double or triple bonds, wherein when G is a single bond, two R groups are attached to each C, and when G is a double bond, one R group is attached to each C, wherein R is a substitution group

69. A composition according to claim 58 wherein said conductive oligomer has the formula:



wherein

n is an integer from 1 to 50;

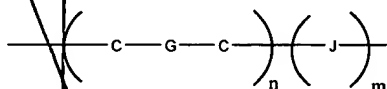
m is 0 or 1;

C is carbon or substituted carbon when G is a single or double bond;

J is carbonyl or a heteroatom moiety, wherein the heteroatom is selected from the group consisting of nitrogen, silicon, phosphorus, sulfur; and

G is a bond selected from single, double or triple bonds, wherein when G is a single bond, two R groups are attached to each C, and when G is a double bond, one R group is attached to each C, wherein R is a substitution group.

70. A composition according to claim 62 wherein said conductive oligomer has the formula:



wherein

n is an integer from 1 to 50;

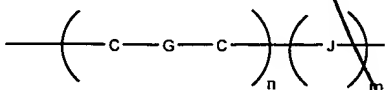
m is 0 or 1;

C is carbon or substituted carbon when G is a single or double bond;

J is carbonyl or a heteroatom moiety, wherein the heteroatom is selected from the group consisting of nitrogen, silicon, phosphorus, sulfur; and

G is a bond selected from single, double or triple bonds, wherein when G is a single bond, two R groups are attached to each C, and when G is a double bond, one R group is attached to each C, wherein R is a substitution group.

71. A composition according to claim 66 wherein said conductive oligomer has the formula:



wherein

n is an integer from 1 to 50;